SP 4-3

PREVENTION AND INFECTION CONTROL FOR NOROVIRAL INFECTION

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Norovirus, a genus within the *Caliciviridae* family, is the leading cause of sporadic and epidemic acute gastroenteritis worldwide. Our understanding of norovirus epidemiology has significantly progressed in recent years due to the development of sensitive molecular diagnostic techniques. We now understand that human noroviruses are extremely diverse, with three genogroups (GI, GII, and GIV), at least 25 genotypes, and numerous subgenotypes or variants identified in the past two decades. In recent years, only a few strains, primarily those of genogroup II, genotype 4 (GII.4) have been responsible for the majority of outbreaks. Norovirus genotype GII.4 is responsible for the majority of outbreaks, but new variants are continuously emerging. Noroviruses are found in the feces and vomit of infected people. This virus is very contagious and can spread rapidly throughout healthcare facilities. People can become infected with the virus in several ways: 1) Having direct contact with another person who is infected; 2) Eating food or drinking liquids or water that are contaminated with norovirus; 3) Touching surfaces or objects contaminated with norovirus, and then touching your mouth or other food items. In a healthcare facility, patients with suspected norovirus may be placed in private rooms or share rooms with other patients with the same infection. Additional prevention measures in healthcare facilities can decrease the chance of coming in contact with noroviruses: 1) Follow hand-hygiene guidelines, and carefully washing of hands with soap and water after contact with patients with norovirus infection; 2) Use gowns and gloves when in contact with, or caring for patients who are symptomatic with norovirus; 3) Routinely clean and disinfect high touch patient surfaces and equipment with an authority-approved product with a label claim for norovirus; 4) Remove and wash contaminated clothing or linens; and 5) Healthcare workers who have symptoms consistent with norovirus should be excluded from work. A norovirus vaccine is being developed for active prevention of the infection in children as well as in adults.

SYMPOSIUM 5 (SP 5)

CURRENT MANAGEMENT OF FUNGAL AND VIRAL INFECTIONS

SP 5-1

INFECTIONS CAUSED BY RARE FUNGI

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The predominant nosocomial fungal pathogens are Candida spp., and Aspergillus spp. but rare and emerging fungi are increasingly being reported, also among Candida and Aspergillus genera and species complexes. These rare pathogens are mostly seen in severely immunocompromised hosts. The presentation will focus on Cryptococcus gattii, newly recognized yeast spp, black yeasts, Exserohilum, and Penicillium spp. Rapid taxonomic changes are a hallmark of these fungi. Especially for epidemiological purposes, including outbreak investigation, molecular identification is indispensible. Rare fungal pathogens are often resistant to one or more antifungal drugs.

SP 5-2

CURRENT MANAGEMENT OF CHRONIC HEPATITIS C

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Chronic hepatitis C is a global disease. An estimated of 150 millions people worldwide are chronically infected and around 350,000 to 500,000 people die each year from hepatitis C related liver diseases. Around 15% to 30% of patients with chronic hepatitis C will develop cirrhosis in 20 years. The risk of development of hepatocellular carcinoma would be about 1—4% per year once the patient has progressed to cirrhosis. The prevalence of chronic hepatitis C is the highest in Asia Pacific region. It varies from 1% in Southeast Asia to 5.4% in Central Asia. Chronic hepatitis C also accounts for a significant proportion of patients requiring liver transplantation as a result of decompensation or development of hepatocellular carcinoma. There are altogether 6 genotypes of hepatitis C worldwide and genotype 1 is most common of all infections, followed by genotypes 2 & 3. Genotype 6a is particularly prevalent in Southeast Asia, accounting for over 50% in countries like Cambodia or Vietnam. This genotype is also exclusively common in intravenous drug abusers. The management of chronic hepatitis C has evolved extensively over the years. Combination therapy with pegylated Interferon and ribavirin has been the standard of care for more than 10 years. An over 80% sustain virological response rate (SVR) can be achieved for patients infected with genotype 2 and 3 after half year treatment of this regime. However, the SVR for genotype 1 after this combo can only fall around 50% even with 48 weeks of therapy. Moreover, significant side effects from the combination including flu-like symptoms, fever, myalgia, malaise, cough, allergic reactions, cytopenia, thyroid diseases, alopecia or insomnia can be anticipated. In response to these caveats, researchers has devoted to develop new antivirals targeting directly on the virus itself, so called the Direct-acting Antivirals (DAAs), with an aim of increasing efficacy and enhancing tolerability & safety. The first generation DAAs include boceprevir and telaprevir. When these medications are used in combination with the pegylated interferon and ribavirin, a 10—20% increase in SVR can be achieved in genotype 1-treatment naïve patients. SVR in difficult-to-treat patients such as previous non-responders to dual therapy is still disappointing. Moreover, the added side effects including aggravation of anemia, dysguesia and enhanced allergic reaction can be difficult to overcome. Interferon-free regime is then a very attractive strategy of therapy. Sofosbuvir is the first compound ever produced to be the interferon-free treatment. When it is combined with other antivirals for different genotypes, an extraordinary SVR of 80% to even over 90% can be attained. The rapid development of hepatitis C medications is unprecedented. There are at least 10 novel medications on the pipeline to enter this treatment arena. The future eradication of hepatitis C virus may be anticipated.

SP 5-3

CURRENT MANAGEMENT OF HIV INFECTION

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No abstract.

SYMPOSIUM 6 (SP 6)
INFECTION PREVENTION AND CONTROL IN HEALTHCARE SETTINGS

SP 6-1

NATIONAL IMPLEMENTATION OF ANTIMICROBIAL STEWARDSHIP PROGRAMS

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A snap shot survey conducted in 2008 of AMS programs in Australian hospitals reported only 11% of hospitals had a fully integrated AMS program in place that was overseen by a central body or committee; only 67% used guidelines to guide antimicrobial prescribing, and only 47% did regular audits of antimicrobial prescribing (Chen 2011).
The National Safety and Quality Health Service (NSQHS) Standards were designed to protect the public from harm and to improve the quality of care to patients. In implementing the NSQHS Standards, health services have put in place safety and quality systems to ensure standards of care are met and quality improvement mechanisms exist. This includes the implementation of Antimicrobial Stewardship (AMS) programs in every hospital and day procedure service in Australia.
Since the implementation of Standard 3, 100% of health services accredited to date have a fully developed AMS program, all prescribers have access to antibiotic guidelines, and, all health services monitor their use of antibiotics. While some countries have developed guidelines and strategies for AMS program, many are yet to include specific requirements for the management of antibiotic resistance and usage Australia leads the world in mandated requirements for infection prevention and control and AMS in health services